Grapevines

Grapevines can damage trees by breaking tops and limbs, pulling the tree treetops down, by increasing ice storm damage, and by shading the leaves in the tree crowns. Damage is more likely on good to excellent sites than on poorer sites.

Grapevines can be controlled by severing or by basal bark application of an oil-based herbicide. Severing is effective if performed at least four years prior to harvest. That amount of time is necessary to allow shading to kill new grapevine sprouts. Grapevines are intolerant of shade, so although cut vines may sprout prolifically and send up long vines, they will die if the trees above are tall enough, that is, 18 feet in unthinned stands and 25 feet in thinned stands. Cutting vines in shorter trees will result in partial control.

Vines should be cut at least four years before harvest, or basal sprayed, to prevent re-infestation of regeneration. This is especially important if clear-cutting is used because clear-cutting provides the full sunlight grapevines need. When practicing selection harvest or crop tree selection thinning, cut all grapevines if possible. This is because vines can spread from neighboring trees and infest the crop trees.

In some cases a young stand will be so heavily infested that it is entirely covered by vines. In this case chemical control is necessary. Unfortunately, there is no way to kill the vines without also killing the young trees. Studies have shown that good control can be obtained with basal spraying with an appropriately labeled oil-based herbicide, by using a mistblower to apply an appropriately labeled water-based herbicide, or by broadcasting Tordon 10K pellets. Even after chemical treatment, dormant grape seeds will continue to sprout for at least 15 years, making control necessary again when saplings are tall enough.

Grapevines are very beneficial to wildlife. If wildlife habitat is a management objective, a goal of only partial control may be appropriate.

Kudzu

Kudzu shades out all competitors and is difficult to control. Tubers occur every several feet in infested areas, and nodes on vines readily take root. Tubers grow as deep as 9 feet, and can weigh several hundred pounds. They store large amounts of starch which give the plant a tremendous ability to resprout.

Dense vines mask both safety hazards and kudzu "crowns" (tops of tubers). It is highly advisable to clear away vines before proceeding. If logging kudzu-draped trees, do it a year ahead of treatment, and log in winter if possible to avoid spreading the vines.

Several options for eradication are available. A combination of measures may be most effective. Eliminating kudzu requires constant vigilance, since this vine grows as much as a foot per day, and birds spread its seeds.

Area treatments:

Prescribed burning. Careful use of fire in the winter will clear the ground and make treatment much easier. Take care. Kudzu forms loose, fine fuel beds up to several feet deep, and provides "fuel ladders" into tree crowns. Pre-treatment logging will eliminate this risk.

Broadcast herbicide application. The most effective herbicide available for kudzu control is Tordon:

Kudzu less than 10 years old:

- Tordon 101 (picloram + 2,4-D) @ 1 gal/acre
- Tordon K (picloram) @ ½ gal/acre
- Tordon 101 @ ½ gal/acre + Tordon K @ 1 qt/ac

For kudzu more than 10 years old, double these dosages. Spray when actively growing, no earlier than early June. Apply when the wind is calm and within 2-5 days of rain. *Warning: Tordon moves off-site easily during rain, especially on steep slopes, and is highly toxic to fish. Do no apply near water (see label on product).*

***Tordon is a restricted-use pesticide*.** Applicators must be licensed. Landowners can be certified and apply for a permit to purchase Tordon at the County Extension Office. ALL PESTICIDES MUST BE APPLIED EXACTLY ACCORDING TO THE LABEL.

Transline is also highly effective against kudzu. It has the added advantage of killing only a narrow range of species. Apply Transline when vines are actively growing but after the spring growth spurt (mid-summer to early fall) according to the label.

Other herbicides labeled for kudzu:

- Banvel 720 (dicamba + 2,4-D) 2-3 gal/ac, mid-July through October; add 2 qt/gal non-ionic surfactant
- Garlon 4 (triclopyr) 1-2 gal/ac, May through September, except during drought
- Krenite (fosamine) 1.5-3 gal/ac, apply in Aug-Sept; add 1 qt/100 gal non-ionic surfactant + a drift control agent
- Accord (glyphosate) 1 gal/ac when actively growing; ***can be used near water***

Spike, Spike 20P and Spike 40P are highly effective herbicides for use along fences, where kudzu is often oldest and most entrenched. Banvel 4-L and Crossbow are labeled from treating pastures.

Repeat spraying in a year to kill emerging dormant sprouts. Spot treat for as long as necessary thereafter (3 up to 10 years).

Herbicides can be applied by tractor or by backpack sprayer. Tractors are not useable on steep or unknown terrain, and backpack sprayers are very difficult to use in vines over 2' deep.

Mix as per the label. Application rates to 40-60 gallons per acre have been tested; no difference in effectiveness was found.

Apply in cross-hatched pattern with strips slightly overlapping. Near streams, follow the contours of the land in parallel overlapped strips. Use only herbicides approved for use near water (that is, Accord) in riparian zones (areas adjacent to streams).

Grazing. Kudzu provides excellent high-protein livestock forage. Overgrazing depletes starch reserves in tubers, thus weakening the plant. Supplement with other feeds as kudzu disappears.

Chopping, mowing or disking. Repeat every 2 weeks as vines emerge in the spring.

Spot treatments:

Grubbing. Dig tubers out by hand. This works best for small infestations of young plants.

Spot spray. Use a backpack sprayer to spot apply a solution of 1 pint/4-5 gal Tordon 101, or ½ pint Tordon K/4-5 gal water. Other herbicides are also affected. Use according to label.

Chop/paint root crowns. Chop into root crowns, paint on a 50% solution of glyphosate (Accord) or triclopyr (Garlon 3A).

Cut large vines & paint stumps. Use on well-established vines around non-target plants and where vines are growing into tree tops. Cut vine 2" above ground and paint with a 25% solution of either glyphosate or triclopyr. Apply when temperature is greater than 40 degrees and 60 degrees, respectively.

Place an opaque impenetrable object over the crown. This might be the simplest, cheapest, most effective way to control small infestations. First burn off the dead vines. Cover each crown with an opaque object, such as an asphalt shingle, black plastic sheeting, heavy black garbage bag, or sufficient layers of cardboard. Weight down so that no light gets in and the covering will not blow away.

Persistence is the key. It may take up to 10 years to find and eradicate every sprout, and constant effort is required to combat invasion from neighboring property.